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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,969	06/19/2002	Matthias Katter	47192/270460	6636

23370 7590 03/22/2004

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EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/088,969	Applicant(s) KATTER ET AL.	
	Examiner John P. Sheehan	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
- 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
- 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The single spacing of the lines of the specification and claims is such as to make reading difficult. New application papers with lines double spaced on good quality paper are required.
2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:
 - I. The proportions recited in claim 1, lines 7 to 13 do not find antecedent support in the specification as filed.
 - II. The formula appearing in claims 2 does not find support in the specification.
 - III. The formula appearing in claims 4 does not find support in the specification.
 - IV. The claimed process including the steps and operating conditions recited in process claims 10 to 15.
3. The disclosure is objected to because of the following informalities:
 - I. The specification at page 2, lines 13 and 14 refers to claim 1 and page 3, lines 6 and 7 refers to claim 6. It is not proper to refer to the claims in the

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specification in that the claims may be amended, canceled and/or renumbered during prosecution.

II. In Table 1 appearing on page 6 of the specification the headings, "SE in Gew.%", "B-Gehalt in Gew.%" and "Fe-Gehalt in Gew.%" are not understood. It appears these headings are not in English.

III. In like manner, in Table 2 on page 9 of the specification, the headings of the first three columns are not understood. It appears these headings are not in English.

IV. In like manner, in Table 3 on page 14 and Table 4 on page 15 of the specification, the meaning of the column headings, "Zusammensetzung in Gews.%", "SE, effektiv" and B, effektiv" and "Analß-temp." are not understood. It appears these headings are not in English.

Appropriate correction is required.

Drawings

4. The drawings are objected to because in Figures 1 and 6 to 10 the meaning of the phrase, "Gew.-%" is not clear. It does not appear to be English. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112, 1st Paragraph

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1 to 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

I. As originally filed the claims employed the closed transitional term, "consisting of". As amended the claims now employ the broader open transitional phrase, "comprising". There is no support in the application, as filed for, for the use of the broader open transitional phrase, "comprising".

Claim Rejections - 35 USC § 112, 2nd Paragraph

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 10, 12 and 14 and claims 11 and 13 dependent therefrom are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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I. In claim 10, lines 3 and 4 it is not clear what it is that applicants are attempting to claim. For example, "the magnetic field" lacks a clear antecedent. It is not clear what the phrase, "powder that was produced by reduction of at least one melting body" means. What does the phrase, "melting body," mean in the context of the claims? How is powder produced from a body that is in the process of being melted?

II. In claim 10, lines 6 and 7, when in the process does this cooling step take place?

III. In claim 10, lines 8 to 14, it is not clear what applicants are attempting to claim.

IV. In claim 12, lines 1 and 2, the term, "the raw body" lacks a clear antecedent.

V. In claim 12, lines 2 and 3, the meaning of the phrase, "after the sintering process at holding temperature" is not understood.

VI. In claim 14, line 2, the term, "the raw body" lacks a clear antecedent.

VII. In claim 14, lines 2 and 3, the meaning of the phrase, "after the sintering process at holding temperature" is not understood.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 to 9 are rejected under 35 U.S.C. 103(a) as being obvious over each of Kim et al. (Kim, US Patent No. 5,589,009, cited by applicants in the IDS submitted August 13, 2002) or Uchida et al. (Uchida, EPO document No. 0 753 867 A1, cited by applicants in the IDS submitted June 11, 2002).

Each of the references teaches a permanent magnet having a composition that overlaps the alloy composition recited in the instant claims.

<u>Element</u>	<u>Applicants'</u> <u>Claims</u>	<u>Kim</u> <u>(col. 1, lines 43 to 60)</u>	<u>Uchida</u> <u>(page 3, lines 34 to 48)</u>
Rare-Earth	26.9-33	27-35	27-31
Boron	0.726-0.997	0.9-1.2	0.5-2.0
Co	0.5-5	up to 30	0.3-5
Cu	0.05-0.3	0.02-0.5	0.01-1.0
Ga	0.05-0.35	0.02-0.5	0.01-0.5
Al	0.02-0.3	up to 5	0.02-2.0

The boron proportions listed above for the instant claims were calculated by substituting the $[SE]_{\text{eff}}$ values recited in the claims into the claimed equation for $[B]_{\text{eff}}$.

Each of these references teaches specific example alloys that closely approximate that claims alloy composition. Kim teaches a specific example alloy that with the exception of the B content is encompassed by instant claims (column 15, Table XI, Alloy I). Kim's Alloy I contains 1.1 weight % B while the instant claims recite an upper limit of 0.997 weight %, otherwise Kim's Alloy I is completely encompassed by the instant claims. Uchida teaches several specific alloy compositions that with the

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exception of the B content are encompassed by the instant claims (page 14, Table 2, Examples 4 to 6, 8,9 and comparative alloy 7). These alloys contain 1.00 to 1.05 weight % B while the instant claims recite an upper limit of 0.997 weight %, otherwise Uchida's cited example alloys are completely encompassed by the instant claims.

The claims and the references differ in that the reference do not teach the exact same proportions as recited in the instant claims and the specific alloys cited by the Examiner contain 1.0 to 1.1 weight % B while the instant claims recite an upper limit of 0.997 weight % B. Further, some of Uchida's alloys contain Nb.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy proportions taught by the references overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

Further, the cited example alloys taught by each of the references, except for the B content, are encompassed by applicants' claimed alloy. The example alloys cited by

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the Examiner contain 1.0 to 1.1 weight % B while the instant claims recite an upper limit of 0.997 weight % B. In view of this, the alloys taught by the references closely approximate the instantly claimed alloy composition and are so close that one would have expected the alloys taught by the references and the claimed alloys to have the same properties, *Titanium Metals v. Banner*, 227 USPQ 773 and MPEP 2144.05. Regarding Uchida's example alloys containing Nb, it is the Examiner's position that the open claim language, "comprising" used in the instant claims does not preclude additional elements such as Nb from the applicants' claimed alloys.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John P. Sheehan
Primary Examiner
Art Unit 1742

jps